1:Ingrams G-5 (1934-35)1936 MM2 Hadhramaut MM2

roaming far afield in search of water and pasture. They work in the fields, milk the animals (with the exception, in some cases, of camels), gather the firewood, and fetch the water. They are not so careful to keep themselves veiled, finding it sufficient to draw their head cloths in front of their mouths. If she belongs to a nomadic tribe a woman will follow her husband in his search for grazing, carrying the household utensils, usually one large saucepan, on her head and the baby on her back. Only very occasionally do the women emigrate with their husbands, but we travelled with such a family on the start of their journey to Zanzibar to seek a fortune.

The remaining women are those of the poor townspeople, the female servants, slaves, or Subians. The last two are least particular about veiling. The others, no matter how poor, will always cover at least the lower part of their faces. Toil is the portion of all of them: they labour in the gardens, help the men and animals to draw water from the wells, and in many towns they are the principal water carriers, bearing their burden in skins slung across their backs. The servants and slave women in well-to-do houses lead an easier existence. They cook the food, do such cleaning as is ever done, and fetch and carry for the ladies of the household. Slaves may be taken as concubines, but find their husbands among their own class. They are much favoured, being brought up as members of the family, and, like many privileged retainers, usually become somewhat outspoken and domineering in their old age.

CHAPTER VII.

PRODUCTION AND RESOURCES OF THE HADHRAMAUT.

The natural resources of the Hadhramaut, such as they are, are principally agricultural. It is perhaps unnecessary to emphasize that only a very small proportion of the total area of the country, which may amount to 35,000 or 40,000 square miles, is suitable for the growing of crops. As a general rule only wadis can be so used and the bulk of the land surface consists of the barren rock of mountains and steppes.

Tobacco.

The principal crop of economic importance is the well-known Hamumi tobacco, and Gheil ba Wazir is the principal centre where it is grown. Practically speaking the production in that place is entirely Government-directed and all the land is State land.

The nurseries are situated about three miles from Gheil at Al Quf. Here there is an apparently inexhaustible, somewhat brackish, water supply at depths to about 30 feet from the surface. There are three deep pools which are tapped by subterranean channels for Gheil and Al Harth, the source of the Gheil water supply being called Humat al Farath, and that for Al Harth being called Humat al Harth. Along the line of channels from these pools there are

Guano, brought from the small islands of Sikka or Jibus and Jazirat Bureika near Bir 'Ali west of Mukalla, is used when obtainable, but it is expensive. In the heavily-wooded parts of the Wadi Maseila the bush is burnt when cut. This provides a potash dressing the value of which is appreciated by the cultivators.

Terrace cultivation.—" The villages had very little cultivable soil and in many cases the small terraces had been made by bringing soil from a distance and then built up with rubble revetments, the area varying from 5 square yards to ¼ acre. These terraces were always built on the sides of the hills to avoid destruction by floods, and the houses generally on a higher level." Of the Meifa valley, Mr. Heald says that the cultivated terrace areas which were in bulge-like shape along the stream were irrigated by taking the small canals off from the rivers or springs at varying heights and bringing them down at great distances to the terraces. Although all the terraces I saw were generally above flood-level, there are none built high up the Wadi walls.

Irrigation.—Land is irrigated from springs, wells, or rivers. When wells and rivers are used, cattle, or camels, or donkeys, or men and women, or a combined team, pull up one or two leathern buckets attached to a rope running on a wooden pulley. The water then flows down a mortar or mud channel and is finally distributed to the land by small canals. The quantity delivered from a well by this method does not exceed 500 gallons an hour. When the land is irrigated from springs, the water is conducted by channels to the various terraces. In order to supply all the various levels, these small canals take off at great distances and there is consequently considerable loss by percolation and evaporation before the water reaches the land.

Occasionally hollowed-out halves of date palms are used as water channels for crossing hollows, and the cultivators of the Wadi Maseila display considerable ingenuity in bringing the water from the river to the land they are working. The river is usually at some distance from the foot of the steep bank above which the land is cultivated. Channels are dug from the river and a deep hole made at the foot of the bank. A scaffolding is erected over the hole to carry the usual well machinery, and a mud aqueduct supported by tree trunks and branches carries the water on to the higher level ground where it is distributed by canals in the usual way. A sloping walk of timber covered with earth is also provided for the team of animals and humans. Dams to raise the level of the water, and made principally of brushwood, are a common feature of the Wadi Maseila. In other places we saw a number of stone dams.

In most villages irrigated from springs the water is shut off at sunset, and the spring fills a cistern made from stone and mortar designed to hold the spring water running during the night. The springs naturally vary in volume, but Mr. Heald states that they generally range about 5,000 gallons an hour. Of Meifa he states,

[654] 311 241 Mr. H. M. Heald, the agriculturist, visited Asfal Al 'Ain, the Sultan's estate at Fuwa, and the Wadi Meifa. As regards Asfal Al 'Ain, he reported that the whole country along the Wadis through which he travelled consisted of hills and wastes, and from an agricultural point of view was very disappointing. In this rocky region, land is scarce. In a few small hamlets, terraces have been made with soil collected in the wadis, and a few acres of these are cultivated, producing millets, sweet potatoes, dates, and tobacco on a poor scale. These terraces are irrigated from springs and wells, but the latter give very little water. No definite seasons are followed for sowing and harvesting of crops. In one village Mr. Heald saw a crop in three stages of growth, viz., newly-sown, half-grown, and harvested. The soil is generally a light shallow loam of alluvial nature, devoid of humus, and, cultivated as it is by the most primitive methods, is becoming more impoverished year by year. Very little manuring is done owing to the cost of transporting fish and the scarcity of dung.

At Fuwa he saw 250 acres of millet and tobacco cultivated by the Sultan's slaves. Owing to the poor soil and bad cultivation, the produce was but small and none of it marketed. The villages along the coast to the entrance of the valley near Ras Al Kalb are similar to those in Asfal Al 'Ain district, but the cultivation is poorer.

Mr. Heald estimated the total area of the soil in Sidara, cultivated and capable of being brought under cultivation, at about 14,000 acres, of which considerably more than one half consists of swampy or salty land at the mouth of the river at Hali. The total area of all the land fit for cultivation in the country he saw, he estimated at under 20,000 acres.

[312] Owing to insufficiency of water for irrigation purposes, Heald considered it would be difficult to reclaim any large area of land at the mouth of the river at Hali, as most of this land is either swampy or bad salty soil due to the river changing its mouth frequently after heavy rains coming down the valley from the interior. The water is also very salty. Another obstacle to developing this area, and, at present a very big one, is the unhealthy climate and the impure drinking water.

000 Mr. Heald concludes:

> "As regards settlers, it would, on account of the scarcity of land and the unhealthy climate at Meifa, be quite wrong to try and induce people to emigrate from India on a large scale, but a few could be settled at Fuwa and higher up the valley at Jol and Giswal. The present inhabitants, the Sybians, who are acclimatized, could then be sent to the mouth. As, however, this would only affect a very few thousands of acres, perhaps the expense would not be worth the trouble, and the

Clan.	Section.	Places.	Nos.	'Aqil.
Bin Yamāni and their slaves ...	—	Qasm	50	'Ali bin Ahmed bin Imani.
Āl Sa'id, Bin 'Uthmān, and Āl Dahnān.	—	Al Khōn	50	'Umar bin 'Awadh bin Sa'id.
Āl Qafla, Āl Barakeiz, Āl Heithwa, and Āl Nuheid.	—	As Sōm	50	Kharīf
Āl as Sa'd	—	'Asum	45	'Isa
Samāh al 'Usba	—	Al 'Usba	15	'Aidha bin 'Atūfa.
Beit Bal Hateish	—	Fughma	35	—
Āl Bin Kōb	—	Sha'b Hud	15	'Awadh bin al 'Ahīdī.
Bin Marsaf	Al Fahd	—	120	—
Ash Sheiban	5 sections	—	—	—
			847	

The Tamimi are a part nomad, part settled tribe, living in the main wadi from the neighbourhood of Tarim to beyond Qasm. They have been allied to the Qu'aiti, with whom they have an "A" agreement, for a long time, and have had a long-standing feud with the 'Awāmir and Kathīris which was terminated by the Qu'aiti-Kathīri agreement. The Kathīri Sultans have no jurisdiction over them but it is said that the Tamimis are allied to them for purposes of defence. Disputes between the Tarim Government and the Tamimis are settled by negotiation or Qu'aiti interference.

The Tamimis emigrate to Java and the East African Coast, but they are a poor tribe. They grow wheat, lucern, vegetables, jowari, and other crops, on well irrigation. A large amount of land in the Tamimi territory is the property of the rich townsmen of Tarim and Dammūn which the Bin Silma cultivate, and they are generally safe and honest. At harvest time, however, Beduins come from across the northern hills, which are quite close to the cultivation here, settle in the groves, and do a certain amount of damage. Like most wadi dwellers from Tarim eastwards the Tamimis obtain their supplies from Shihr rather than Seihut, though Seihut sends regular caravans as far as 'Einat.

The Bin Qasīr clan is sometimes considered as divided into four sections, the Āl Kibl, Āl 'Awadh bin 'Umar, Bin Dahdūh, and Beit Bal Hateish. The Bin Fallūqa and Bin Sa'id bin Ahmed clan is sometimes called a section of the Ash Sheiban clan; the latter is said to be divided into five sections. The Bin Silma is said to be the strongest clan and is stated to have four sections.

The *mansabs* of the Tamimi are 'Umar bin Zein Āl 'Abdulla bin Ash Sheikh for the Āl Yamāni, Hasan bin 'Alawi al 'Aqīl, Ahmed bin 'Aqīl, Āl Matahar, Tahir bin Bubekr Āl Tahir for the Balheij, and 'Alawi bin 'Abdulla Āl Shibab for the Bin Silma.

[See page 92, category 116 -- Analyst]

2:Ingrams G-5 (1934-35)1945 MM2 Hadhramaut MM2

Hurricane fighter and a mobile canteen for blitzed areas in England. The women of Mukalla have made bandages for the Red Cross in Egypt regularly since 1942.

That is a brief comparison between the Qu'aiti State in 1936 and in 1944: and progress has been made in other ways too. In case the picture seems too favourable, it should be remembered that the famine, due to the loss of over £600,000 a year in remittances from Singapore and Java, seven years' drought, the difficulty of getting food and its high price, the loss of 50 per cent of the working camels, and the difficulties of shipping, has had a very grave effect on the country, but has on the whole hit the interior rather than the coast. His Majesty's Government came to the rescue by voting over £300,000 for famine relief, and by providing air transport for grain, but in dealing with the progress of the Qu'aiti State it is right to record that the Government and the merchants have done their best, and the 1944 estimates included about three lakhs of rupees for famine relief, both by direct grants and by the provision of public works. A voluntary cess by merchants on their imports, the contribution by Government servants of 1 per cent of their salaries, and other charitable efforts raised a fair amount more; and soup kitchens, infirmaries and so on were provided at the coast for refugees from the interior.

NATURE OF THE PEOPLE AND COUNTRY

Before describing the methods used in building up the Qu'aiti administration, something must be said about the nature of the people and their country to explain why unusual methods were required. The Hadhramaut is in many ways different from the rest of Arabia, from which it is for the most part separated by desert on all sides, but since it has a seaboard its people have always been able to find a living across the sea. They have had to do this because most of the 70,000 odd square miles of the country is irreclaimable desert and it is unlikely that it could ever support more than a quarter of the population. In other lands they have come to know Western rule but for the most part it has had few attractions for them. They generally find the trammels of an ordered life irksome, and throw them aside as happily as they drop their tarbushes and tussore suits for a waist cloth and indigo when they come back.

The nature of the country provides an explanation of the nature of the people. The vast and barren areas of mountain and jol have bred in the bedouin a deep sense of freedom and an unwillingness to yield it to anyone, for it is all he possesses. In the deep valleys of the hinterland the horizon is bounded by walls a thousand feet high and this has bred in the people an exclusiveness which it would be hard to find elsewhere. In the towns and villages of these valleys a most particular form of religion has grown up. There is none of the free brotherhood of Islam, but a system of classes of seiyids, of settled tribesmen with few of the virtues of the desert bedouin, of money-lending immigrant Yafa'i tribesmen from the west, of descendants of African slaves, of merchant townsmen, and of hard working

T: Stuiler-Raemaekers T-3 (1950-51) 1953 MM2 Hadhramaut MM2

Some miles out of Aden a sultan recently killed two of his cousins because of some rivalry between them, and not more than fifteen years ago there were cases of open piracy at Balhaf. Such incidents will illustrate that it is not easy country to travel through or to subjugate, isolated as it is behind roadless mountains and plateaux. There are some 500 miles of this barren, rough country, where the people are fiercely independent and distrustful of outsiders. It was long impossible to travel right across it, and it has been done by only very few people, chiefly by the Dutch explorer Van der Meulen, who has crossed it three times.

Considering the geography it is not surprising that modern civilization, and particularly European civilization, has never penetrated the interior of this peninsula. In such outcrops of continents as this all civilization seems to come and go very slowly, and so does life itself. The Indo-European civilization, which started in the Fertile Crescent before the time of Ur of the Chaldeans, has only very slowly percolated down to this outcrop of Asia, as it did in the peninsulas of India and Malaya; once there, it remained static and almost intact for 4,000 years. When one goes to Hadhramaut now one can almost imagine living in the time of Abraham of Ur and the Chaldeans.

The Hadhramis themselves trace back their ancestry and history to Noah, from whom they descend through Sem and his grandson Ad, who is their legendary father of the giant race, and from whom in turn descends *Hathermaveth*, whose name means "Death is Present" and became "Hadhramaut." This shows that in those far-off days the Arabs of Southern Arabia were hardly less bellicose than they were until the British came to Hadhramaut in 1934, when Mr. Ingrams started negotiating cessation of wars and blood feuds.

Hadhramaut, we know then, lies 400 miles from Aden eastwards along a roadless coast, across merciless basalt mountains, quicksand, dunes and deserted beaches—400 miles of sand and rock and ragged cliffs, with only five unknown bedouin fishing hamlets en route. Going along this coast—be it by plane, dhow or, at last, since 1951 by pioneer desert trucks—one can hardly believe that any form of life is possible inside or behind these torrid treeless wastes. For behind these coastal ranges, to the north, we know it is the great desert that covers all Southern Arabia, the Empty Quarter, which has but four or five oases along the 600- or 700-mile camel route that crosses it. Neither from north nor south is there seemingly any life vein, nor from east nor west. Yet it is here that we shall find the valley of Hadhramaut.

Like the hidden valley of Petra, Hadhramaut has remained secluded throughout the centuries, but with this difference: the valley of Hadhramaut is not dead.

When one has braved the 400 miles of desolation eastward from Aden, one suddenly comes upon a great scintillating white harbour; a crescent moon wedged between an azure bay and blistering pink rocks. This is Mukalla, the beautiful white-and-blue port, the cup of its harbour filled with many little native craft and sailing dhows. Behind the town there seems nothing but endless waste tableland with one or two poor bedouin hamlets—the Jol, rising to 6,000 feet and stretching 150 miles inland. But

?: Stuber-Rasmussen T-3 (1950-51) 1953 MM2 Hadhramaut MM2

133 a second miracle happens. There is a cleft in the great basalt plateau and
311 a beautiful green valley opens abruptly in the flat tableland—a valley running from east to west, joining the sea some 150 miles further on. This is a fertile valley with gardens and palm groves, millet fields and white palaces. An underground river continually provides water for the wells and the little irrigation channels. There are crops up to three times per year. In this lovely setting very civilized and well-dressed townsfolk live in large mud-built towns on the valley cliff sides. Recently they have laid aside their arms and ceased their blood feuds and tribal wars which raged from town to town, from tribe to tribe, from family to family. With the aid of the British adviser they have established law and order and made their foreign trade, which is their livelihood, flourish unhindered.

172 When we go back into history to find out where this miracle has sprung
341 from, we discover that there were the old Sabean and Hymyaritic civilizations of 1,000 or 2,000 years B.C., of which Mr. Ingrams spoke. Perhaps it started with the Minean Empire, on the eastern border of Yemen, and its capital, Ma'in. Later came the Sabeans with their capital a little south, at Marib; followed by the Katabaneans, whose centre, Timna, was at the south-eastern corner of the great desert. And lastly, perhaps, the Hadhramis, whose early capital may have been the much disputed Shabwa. These people built in stone, and their buildings were several storeys high and of very fine dry masonry. Many are the ruins covering the western territory between Aden and Hadhramaut and to the north in Yemen. But also in Hadhramaut itself, further east, there are vestiges of towns and temples, in the main valley and the side valleys; great plans of garrison cities, and remains of castle and palace walls in beautifully executed stonework, all erected perhaps some 2,000 years ago.

341 With such a tradition it is not surprising that something is still found
333 in the present day, and although the Hadhramis have not continued the stone masonry and have turned mainly to sun-dried mud bricks, their achievements are of remarkable interest.

101 Reviewing the various groups of the population, there are the bedouin
342 who still live by camel transport, the sand bedouin of the desert who live in simple black camelhair tents, and the bedouin mountain tribesmen who live on the arid plateaux. The latter are rugged and tough, like the country round them. Their life is hard; it is scorching hot without any shade in the day, bitterly cold at night at 6,000 feet. They still build their low windowless huts with brushwood roofs with the stones of the plateaux in dry walling. They carry on in their primitive way the stone tradition which has been lost elsewhere in the eastern area.

341 The next class of inhabitants we meet are the remote valley bedouin,
311 who live in rather better circumstances. They do have a little grazing,
342 cultivate a little land where they grow millet called dharrah and a sort of little cucumber-tomato called faguws. They live in the earthen beds of long-dried-up rivers that have a flood from the hills about once a year. They have grown lazy like everyone else, and they build their little castles
342 of mud bricks with a base of rough stones from the river-bed. A passage down the centre leads from the entrance door with almost windowless rooms for storage either side to a stair leading to a sheltered roof terrace.

7: Sturler-Raemaekers T-3 (1950-51) 1953 MM2 Hadhramaut MM2

It is the same type of building that has been carried to perfection in the towns. This brings us to the chief group of interest—the townsfolk.

The ancient cities usually lay on some small eminence in the centre of the main valley or up a side valley. They had defence walls round them and were probably manned by very well-organized garrisons. When the "middle ages" or "dark ages" of Arabia came upon this area with the decline of the land trade routes in the second century, these cities seem to have been abandoned as the empires broke up. The people who remained after this decline seem to have taken to living in eagles' nests and cliff-side towns built on the steep slopes of the valleys. They may be the forefathers of the town dwellers found today in the main valley of Hadhramaut and its tributaries of Wadi Do'an, Wadi bin Ali, and Wadi 'Idm.

People of the side valleys remained much closer to bedouin tradition than in the main valley, as in lovely Do'an, for instance—the narrow, riverless valley, its bed entirely covered with thick palm groves which are irrigated with water collected in pools and tanks from the yearly rains. They live simply, drinking the old bedouin drink of husk coffee with ginger and eating the plain millet cakes with a few dried herbs and vegetables (instead of tea and imported rice as is now done in the large towns). There are no natural resources here. Food, except dates and honey, is scarce. To earn a living the Do'anis go and trade abroad, mainly in East Africa. The women of the valley retain their picturesque costumes with heavy jewellery reminiscent of the bedouin silver. Their dresses are mostly of homespun black cotton (as also the men's coloured loin cloths), but for "best" they wear silver embroidered black velvet with gold and silver braid bodices.

Their cliff towns are a fair size and an amazing heaping-up of one building above the other. They are solid and well built of several storeys, on a long narrow plan parallel to the hillside in order not to dig too far into the mountain. Massive walls have small windows and corbelled cornices not found elsewhere in this area; they have a Gothic decorativeness that is pure instinct and a lovely rough, crumbling mud surface that fades into the mountainside because they are made of the same material as the mountain itself. Usually the houses are laid out in small apartments, a room with a lobby and a washroom to each; sometimes one, sometimes two to each floor. Both buildings and streets are narrow for lack of space.

But when we come to the great Wadi Hadhramaut the streets are wide and the buildings are much larger and more sophisticated. This Wadi has its underground river and innumerable wells. Luxury abounds. The people from the great valley towns—Shibam, Saiywun, Terim—made their fortunes in Singapore and Java, and here one comes to the most impressive buildings of Hadhramaut.

The great desert town of Shibam with its 500 houses is a town of merchants only. Contrary to all other towns its site is on an eminence in the centre of the valley, and I wonder whether it may not be an old Sabean site. The buildings on the outer rim of the town form a solid wall, five to six storeys high, and these are the houses of the great, where they get a maximum of air, light and view. Six storeys is the agreed maximum, so that no one shall overlook his neighbour. Only the ruler's castle, on

9: Ingrams G-4 (1934-1944) 1945 MM2 Hadhramaut MM2

Audhalis, 'Aulaqis, and Beihanis are too far away, and it is doubtful if any federation with them could be very real. The Yafa'is, though they are excellent outside their own mountains, are at present a very difficult problem from the point of view of good order and government in them. I had almost forgotten the 'Aqrabis, but as that kingdom consists in effect of only one village on the borders of Aden and Lahej they hardly constitute a problem. But it is possible that some day steps towards the federation of the protectorate by areas may come to pass.

If, however, the political outlook is not very promising, experience of recent years has shown that in potential agricultural resources the Western Protectorate is far better off than the Eastern. It is true that its total area is not much more than half that of the Eastern and that by far the greater proportion of it is barren mountains or arid desert, but none the less the cultivable acreage is greater than that of the Eastern and the people are on the whole better agriculturists. There are fewer beduin, and the tribesmen, unlike those of the Eastern Protectorate, are many of them tillers of the land on which they live, rather than employers or financiers of a peasant class with the idea that manual work is unbecoming to dignity. On the coastal area there are large and useful oases at Lahej, Abyan—by far the biggest—and Ahwar. These oases are sure of regular spates from the Yemen highlands behind, and can grow useful crops of grain, principally millet, and vegetables and fruits of the coarser tropical kinds. There are good patches of soil in the Dhala and Yafa'i mountains, and the latter grow the best coffee in Arabia, but at Mukeiras in Audhali country there is a really important fertile area at over 7,000 feet where temperate crops are grown and which is now producing in fair abundance European vegetables and fruits of excellent quality which include potatoes, tomatoes, lettuces and so on, apples, peaches, plums, and apricots. The main difficulty in disposing of these good things, for which a ready market exists in Aden for local consumption and for shipping, is communication and transport. The Audhali plateau is over a hundred miles from Aden and is cut off from the maritime plain and the foothills by a 4,000-foot, almost perpendicular bluff, the picturesque Kaur al Audilla. So road-making is difficult and expensive, and the bad tracks play havoc with the lorries used for transporting the produce to Aden from the foot of the bluff, down which it is transported on animals. If ever the Yemen is developed agriculturally it will have great advantages over Audhali country, for roads can be better made. The main agricultural produce that now comes by caravan and lorry from the Yemen is the highly perishable and iniquitous qat, and the qat traffic is probably centuries old. Better communication and better agriculture in the Yemen would therefore make it difficult for the Audhali country to be economically worth while. Beyond the Audhalis and descending towards the heat of the desert is Beihan country, which drains to the Rub'al Khali. Having high mountains behind it, it is reasonably watered, and millet cultivation is being extended there.

The present tendency in the improvement of conditions in the Western Aden Protectorate is to select an area where conditions are favourable and send a political officer to assist the chief to establish control over his people,

9: Ingrams G-4 (1934-1944) 1945 MM2 Hadhramaut MM2

behind it, and not the high mountains of the Yemen. Its height above the sea-level nowhere exceeds 6,000 feet and is generally not more than 3,500. It has therefore no regular rainfall.

Then, as regards treaties, while the W.A.P. has a total of about thirty-five chiefs in direct relation with His Majesty's Government, the E.A.P. has only seven, of which one, the Kathiri, is comparatively recent. The reason is that in the E.A.P. all that was required was to keep foreign powers off the coast. All the six original treaties with E.A.P. rulers were with coastal chiefs. Starting from the west, 'Irqa and Haura are only small villages. The two Wahidi Sultans come next, then the Qu'aiti, the largest of them all, whose state to-day covers some 50,000 square miles, and then the Mahra, which includes Socotra Island. While the W.A.P. is historically part of the Yemen, and has now a new and natural capital in Aden which supplies it with all its requirements, the E.A.P. is historically and geographically detached and has a local commercial capital in Mukalla, but looks to India, Singapore, and Java for its cultural and social contacts.

The Hadhramaut is historically and geographically a country in itself, and consists of the Wahidi Sultanates, with the two little Sheikhdoms of 'Irqa and Haura, which are really ports in the country of the Dhiyeibi tribe, who are a Wahidi tribe, and the Qu'aiti and Kathiri States. I propose not to say anything more of the Mahra country because as yet little is known about it, though in the last year or two more has been learnt of Socotra.

You will have gathered, I think, that, owing to its desert nature and lack of rainfall, the prospects of the development of agriculture in the Hadhramaut are not very promising, and as the various explorations that have taken place to date have not discovered any mineral resources, it does not look as though the economic future is very bright. The best agricultural areas are Gheil Ba Wazir, on the coast, where Hamumi tobacco is very successfully grown, and this brings in a revenue of about Rs. 200,000 a year to the state, and Meifa, in which conditions have been considerably improved in the last few years and where some further development is possible. It was hoped that the alluvial silt of the Wadi Hadhramaut would prove a fertile area for wide development if water could be found, but experiment has shown that it is largely brackish and, bearing in mind the desert surroundings, it is probable that any further supplies of water which boring might discover would not be sufficient to wash out the salt. It is unfortunate, too, that the bulk of the population, the seiyids and tribesmen, do not take to working on the land themselves, as do the tribesmen of the W.A.P., but rely on dhafa, a class of poor townsmen who are almost in the position of serfs. These dhafa lived by building the palaces of the rich and working their wells, but the fall of Singapore and Java cut off the supplies of money from the Far East so that the rich could no longer maintain them. The beduin had lived by carrying supplies from the coast to the interior, but with the falling off of imports they too suffered. On top of this catastrophe there was a seven-year drought from 1937 to 1944, which meant the loss of crops, flocks, and 50 per cent. of the working camels, so that between the difficulties of

14: van der Meulen T-4 (1931) 1932 MM2 Hadhramaut MM2

taken place here, and there are still many slaves for agricultural work.

The old blind governor, Bā Surra, received us in his castle with oriental hospitality. The only thing we had to complain of in our lodgings was that there were too many interested in us! Our animals for mountain transport had to be exchanged here for others which were accustomed to traveling in the hot sand of the level *wādīs*.

On the 17th of May we resumed our journey, after having been entertained first in the summer residence of the vizier of Makalla, where his son acted as host. As the evening shadows fell we reached Sēf, a miserable and squalid village where nearly a century ago von Wrede was recognized as a Christian, and barely escaped a miserable death. We also had unpleasant experiences at Sēf. Long before Sēf the *wādī* had lost its splendid datepalm cultivation, and had become a broad valley of sand and stones, with here and there some lotus trees (*nibq*). After the excellent reception we had had at Dō'an, Sēf was a grievous disappointment. The governor was supposed to be away, but it appeared later that because of his embarrassment and poverty he had sought an excuse to be relieved of the duty of conferring hospitality upon us. In a very primitive manner we were installed upon the roof of a stable by the governor's soldiers, who took his place as our hosts. We were not left alone for a moment, for interested visitors were continually jostling one another on our roof. We had to secure fresh donkeys at Sēf, and the troublesome negotiations about this began that evening.

The next day the governor appeared, but he seemed to have absolutely no influence. We had to wait for hours before the necessary donkeys and camels were brought. A large escort of soldiers eager for *baksheesh* wished to accompany us, but I vigorously opposed this, and succeeded in reducing their number to two. Much too late, weary of all the negotiations and disgusted with the obvious opposition and antipathy of everybody here

15: Bunker N-4 (ca. 1950) 1953 MM2 Hadhramaut MM2

maut, and not with their beheaded remnants north of the subsidiary watershed, then the similarity becomes obvious. As would be expected from this theory, the south-flowing tributaries to the Wadi Hadhramaut have heads even deeper than those on the main watershed. Given a short eastward displacement in the courses of the original rivers, then it is possible that the Du'an and 'Amd drainages originally fed into the Hizar and Jinab respectively.

The completion of the present phase of river capture occurred when the headwaters of the Hadhramaut cut right back and out of the western edge of the *jol*, and formed the unusual and almost unique feature of the wide upper reaches in a line from Husn al 'Abr to Shabwa. The headwaters cut back rapidly across the plain which had been formed by the wadis 'Arma, Jirdan, Baihan, etc., and carried all the waters from them down to the Maseilah and the Gulf of Aden, whereas before they had drained towards the Persian Gulf. This capture has left a vast dry plain, the Khudaif–Mulais basin, with dry watercourses up to 2 miles wide. Several such courses may be seen in the Wudiya'a area, and have banks 20 feet or more deep, and floors of heavy fluvial gravels.

A series of levels carried out in early 1951 showed river capture still occurring around Husn al 'Abr. Here short, steep-profiled tributaries to the Wadi Hadhramaut are cutting back into the headwaters of the Wadi Hudhi, which flows north-eastwards past Zamakh with the cliff edge of the *jol* forming its right bank. Hills such as the Misair group have been isolated from the rest of the *jol*, and both Misair and Rubah retain the flat-topped character of the *jol*. The cliff face of Rubah is only some 200 feet high on the north where it descends to the Hudhi, but on the south it drops 500 feet to the Hadhramaut. Levels were also carried out in the Minwakh area and showed the capture of the lower waters of the Hudhi and the waters of the Sibr, Kor, Sulhaba, etc., which had been tributary to it. The point of capture of these rivers by the Aiwat as Sei'ar is at Shasun, about 10 miles downstream from Minwakh.

The pattern of settlements

The siting of settlements in the mountain areas is dependent on agriculture with its requirement of a workable tilth and water at a manageable depth. Among the crystalline hills these conditions are best fulfilled at the foot of the torrent course, where the first patches of riverine plain appear. Thus there is a series of settlements from Ranya through Bisha, Tathlith, Hamdha, Sidwa, Najran, Shudaif, Marib, Baihan, and Ansab to Al Hadhinah, and all these settlements can be reached by motor transport from the inland plain by driving up the wadi bed. Penetration upstream of the settlements is frequently difficult as the bed becomes stony and boulder-strewn, and all presence of riverine plain ceases.

In the *jol* the wadis descend in a series of steps which are caused by strata more resistant to erosion. The horizontal section of each of these steps has retained sufficient silt for agriculture and water is also available. Moreover the vertical cliff faces, sometimes higher than the width of the valleys they contain, cut off the morning and afternoon sun, thereby considerably reducing

15: Bunker N-4 (ca. 1950) 1953 MM2 Hadhramaut MM2

133 the amount of evaporation. Accordingly we find in the north–south wadis a
311 continuous belt of cultivations with hamlets of a few houses every mile and towns about 15 miles or an easy day's walk apart. As opposed to this the cultivations in the Wadi Hadhramaut, which runs west–east, are to be found mainly in belts along the northern and southern sides, the south belt being wider than the north, due to the increasing evaporation and lower water table towards the centre of the wadi.

311 Except for the hamlets which occur among the fields, the buildings make
361 use of unproductive land, and perch up against the cliff side on the talus slope. This position also carries the advantages of shade together with good siting for defence. Where land is at a premium, villages may be so sited as to become inaccessible even to the draught and load-carrying beasts used in agriculture, and the stables and grainstores are found at the edges of the fields and at the foot of the narrow winding path leading up to the village (Plate 3).

[104] Water for the permanent cultivations of *dhurra* (*Sorghum* sp.), *dukhn*
312 (*Pennisetum typhoideum* et spp.), lucerne and date palm has until the last few
406 years been drawn by man or animal power, raising a leather bag of water by
241 walking down a ramp away from the well shaft. Nowadays greater use is being made of diesel- and petrol-driven pumps, increasing both the yield and the area it is economical to cultivate. The effect of these pumps, which are available on deferred terms, in lowering the water table will be watched with care. New crops such as potatoes, the brassicas, and sugar cane are also being introduced under the agriculture scheme in an attempt to make the Hadhramaut, if not entirely self-supporting, at least less dependent on its "extra-territorial population."

241 This limitation does not apply to the flood crops which are snatched
312 wherever possible. Throughout the lower wadi systems there exists a com-
361 plicated network of deflector dams which have the object of spreading the floodwaters over as large an area as possible, and leading a certain part of them into irrigation channels. Many retaining dams have been attempted, but usually unsuccessfully, as the major structure has been an earthwork with only the spillway of durable construction. In the shallow beds of the wadis running north from the secondary watershed there are many small cultivated patches and groups of two or three fortified houses are often situated where camel tracks converge on water cisterns cut into the rock.

The transition belt.

133 The transition zone between the mountain systems and the sand desert takes a number of forms. North of the Ramlat[1] al Mundafan the Kaukab sandstone plateau overlies the crystalline rocks to the west, and to the east has eroded to become an area of minor plateaus and blocks. Through the wide flat valleys between these minor plateaus runs the main Najran–Dawasir track, roughly north–south in longitude 44° 45′ E. at a general height of a little under 3000 feet. To the east of this track lies the southern section of the Nafud Dahi, running parallel with the road, and rising to a height of 100 feet

104 [1] Ramla(t): a general name for any sand feature. Thus the Ramlat al Mundafan means literally "the buried sands."

18:Ingrams G-3 (1934-36)1938 MM2 Hadhramaut MM2

Haswein, and Heila, entirely by the people themselves, and most of the seventeen landing-grounds in the country are now in frequent use by the Royal Air Force. It is interesting to note that many of these landing-grounds were built on the initiative of the local people, and all the new ones were voluntarily constructed by them at no expense to Government. The Sei'ar, the Badawin 'Awamir in the north and one or two others have asked for landing-grounds to be made so that they may be visited. 508

Hitherto communication with the Hadhramaut has been by irregular calls of ships at Mukalla and Shihr, but now there is a weekly commercial air service maintained by Arabian Airways from Aden to Mukalla and Seiyun. There was previously no postal service but now there is a post office at Mukalla and five postal agencies at the principal centres of Shihr, Tarim, Seiyun, Shibam and Du'an. There was no wireless communication, but now there is a commercial service with Mukalla and Government stations at Seiyun and Al 'Abr, and another in contemplation. 509 205 206

Remarkable as these improvements in communication are they do not yet fulfil all the needs of the country, for it is over 60,000 square miles in extent with a population of only about 300,000, of whom perhaps 50,000 dwell on the coastal area and 100,000 in the comparatively fertile wadi lands of the interior, while the rest are Badawin or scattered in more remote settlements where the soil allows the production of a modest living. This wide area, rather larger than England and Wales, has now been all seen, at any rate from the air, though of course not all has been visited on the ground and there are still wide and very desolate areas which have yet to be trodden. 131 161 162

The areas that offer most scope for development and on the development of which the prosperity of the whole country must depend are, of course, the coast and the Wadi Hadhramaut system itself. As in all tropical countries agriculture must be the basis of the modest natural wealth of the country, and the area that offers most scope is the Wadi Hadhramaut and its dependent wadis, principally that part of the wadi between Henin and Qa'udha on the west and As Som on the east, with the Wadis Du'an and Leisar, 'Amd, Bin 'Ali, Al 'Ain, Tarba, and 'Adim, running into it from the south. Generally speaking little cultivation is attempted in the wadis from the north. 311

The outlook of the coast, dominated by Mukalla and Shihr, is chiefly commercial and maritime. Those who do not depend on trade go down to the sea either in the dhows or as fishermen, though there is a certain amount of agriculture and the most important areas are Meifa and Ghail Ba Wazir. From the development point of view the Hadhramaut is fortunate in possessing a balanced population and one that has shown itself enterprising in the making of money abroad. It is the general belief of responsible local opinion that many of the 100,000 Hadhramis who live abroad will return, now that there is security and the prospect of finding a living in a country which, more than many peoples with the emigrating habit, they always regard as home. In a balanced population there are classes which fit into every phase of the cultural and economic structure of society, and the obvious basis of development will do nothing to upset the existing structure but simply give it extended scope. In areas inhabited only by tribesmen development must be difficult and slow, for there are many occupations 439 226 241 182 [167]

18:Ingrams G-3 (1934-36)1938 MM2 Hadhramaut MM2

settled here for several centuries, for as far back as the beginning of the sixteenth century Bedr Bu Tuweirak, the well-known Sultan of the Kathiris, whose chain armour and shield has recently been found by the Kathiri Sultan in the palace at Seiyun, imported Yafa'is together with Zeidis from the Yemen and Turks as mercenaries. In course of time the Qu'aiti dynasty arose from these mercenaries and became the principal power in the country. So long have they been settled here that they are now genuine Hadhramis, and like the rest of the Hadhrami tribes are strongly in favour of the present peaceful arrangements. These settled Yafa'is are known as Thelud to distinguish them from the Gharib, the foreign Yafa'is, who still come from the Yafa' mountains in the western part of the Protectorate and serve a while as soldiers. It is among these latter Yafa'is that those who oppose the peace are found, for they are great usurers and have for long made a living from oppression of the poorer classes; and they realize that with the establishment of good order and justice they will not have the same chances in the future.

Al Qatn is about the farthest west that there is extensive cultivation, and it was a marvellous sight last May to see the whole width of the wide wadi green from side to side. Beyond the Yafa'is westward are the Nahd who extend practically to Al 'Abr. They live entirely in the wadi and in the eastern part of their territory are settled; and in the western, where there is little but sand, are Badus keeping flocks. Their capital is Qa'udha where lives Hakim Mbaruk, the very fine old chief with a wide and enviable reputation for dispensing real justice. The Nahd are a well-built tribe and the elders, of whom there are many, have enormous bellies and resonant voices. From the Nahd we have recruited fine young men for the Qu'aiti Sultan's new camel-lancer bodyguard, and very well they look in their scarlet and blue uniforms. I shall never forget the day when the Nahd signed the peace treaty. They had lived in trenches and imprisoned in their houses for years and they all came out at once and there were many reunions.

North of the Nahd in the steppes between the wadi and the Rub' al Khali is the country of the Sei'ar tribe. We travelled into their territory in 1934 and at the beginning of 1937 when I was travelling round obtaining signatories to the peace treaty, practically every Hadhramaut tribe, asking who had signed and with whom they would be able to consider themselves at peace, ended up by asking "And the Sei'ar?" I do not think there was a single tribe in the Hadhramaut among whom the Sei'ar had not looted or killed, and their reputation is generally bad throughout Southern Arabia, for they are cowardly folk and are fonder of stealing by night and murdering by treachery than by taking and killing in fair fight. Some of the Sei'ar signed the truce straight away, but others later on in the year looted over forty camels from the Manahil, and public opinion demanded that something should be done about it. Arising out of this matter the whole of the Sei'ar country was explored from the air and by this means we were able in three or four reconnaissances to discover the lay-out of their country and incidentally to examine the northern limit of the steppe and the desert.

I accompanied all these reconnaissances, of which the first were made in October last year. So that we might have something we knew to start with, we followed first of all the route which my wife and I had taken before. From

18:Ingrams G-3 (1934-36)1938 MM2 Hadhramaut MM2

Shibam to the entrance of the Wadi Ser took us three minutes; this journey had taken us exactly two hours on camels, and twenty minutes by car. After sighting the tomb of the Prophet Salih in the Wadi Khonab we turned into the Wadi Ser and at the mouth of the Wadi Latakh I recognized the Bents' Himyaritic caravan signpost. Then we went up the Wadi Sodaf and from Qa' al Fadhul on the *jol* at its head took directions previously given to me by Badawins for Ba Rumeidan, which we found. This is the residence of Tannaf, the principal chief of the Al Baqi Msellem of the Sei'ar. From the air I saw plainly that just before Qa' al Fadhul we were over the northern watershed, from which deep-cut short wadis run south-south-west to the Hadhramaut, and long shallow ones in an east-north-easterly direction to the sands. There was very little habitation over this part of the country, and most of the inhabitants live in caves. After just over forty minutes' flying from Shibam we found ourselves between two short wadis running out into a broad channel of sand which it took us two minutes to cross, and beyond it was a broken mass of rock stretching away to the north-east. The channel itself ran out into the desert just west of the course of the flight, and the distance from Shibam to this point is calcuated at 69 miles. The visibility was perfect. Air Commodore McClaughry, who was with the flight, noted the high mass of the Seiban mountains at least 100 miles away to the south, so that one could also see at least that distance to the north. An unbroken sea of sand stretched wave on wave far away to the horizon. Looking north it was the most remarkable rosy red colour, quite unforgettable and quite unbelievable if an attempt were made to paint it. It was about three-quarters of an hour short of noon local time, so that the colour owed nothing to early morning light. After a few minutes over the desert, which seemed all too short, we came back to Shibam a bit to the west of Wadi Qubhudh.

Next morning we left Seiyun at a quarter to nine on an almost due northerly course. On this outward flight the same facts were observed, deep short ravines running nearly south to the Hadhramaut, and past the paler coloured *jols* of the watershed more shallow wadis running almost east-north-easterly to the sands. In the upper reaches of the southern system we saw a few poor settlements of the 'Awamir and a caravan of some fifty camels plodding its way southward. The whole *jol* from west to east is heavily scored with well-marked tracks, and it is worth noting, as I have also noted on aeroplane journeys over the Wadi Maseila, that east of our course and some 50 miles north of the wadi as it goes towards Qabr Hud there is a considerable rise in the ground, almost a range of mountains. This is probably the Jebel al Wuti of Von Wissmann's map.

After exactly an hour and a quarter's flying we passed over the edge of the steppe and the desert, just by a conspicuous large white patch of sand, the distance from Seiyun being calculated at 112 miles. Again there was the same wonderful sight of endless rosy waves of sand, though when we were directly over the sand I noticed that it was a rich ochre. Just west of the white patch a channel of desert sand opened into the steppe. This proved to be the eastern end of yesterday's channel, separating a long broken up island *jol* from the mainland. Its situation and shape were sufficiently like Madagascar for us to call it that, and the name seems to have stuck in local usage. The flight

18:Ingrams G-3 (1934-36)1938 MM2 Hadhramaut MM2

coasted westwards along the line just dividing the desert from the steppe; where the larger wadis run out into the sand there were wide stretches of scattered vegetation which made the land look as if there was a green scum on it.

At the western end of the "island," much broken with gulfs and with small islands lying off it in the desert, the flight turned to the south-west, a little to the west of the point which had been reached on the previous day's reconnaissance, and explored the western part of the Sei'ar country, the territory of the Al Hatim of which Bin Jerbu'a and Bin Mulhi are the chiefs. This is the heart of Reidat as Sei'ar, and turned out to be surprisingly thickly populated and cultivated. On almost every bank of the wadis were villages consisting of the usual type of Hadhrami Badawin conglomerate *dars*, with a tall tower in the centre, and small contiguous quarters, each called a *Beit*, clustered round it. Subsequent flights made this country very familiar, and with the aid of a Sei'ar, one of the most intelligent Badawin guides, I was able to identify almost all these *dars*. On several occasions we flew beyond Reidat as Sei'ar over uninhabited steppe to Husn Al 'Abr, seeing on clear days Shabwa away in the distance.

These reconnaissances seemed to us very interesting, not only politically but geographically, for the watershed and the fall of the land, steep towards the Hadhramaut and gradual towards the sands, were clearly visible. Up on this watershed I recorded altitudes of 3600, while 300 miles to the east Mr. Thomas states that the altitude remained fairly constant at about 950 feet. This northern steppe is bounded on three sides by sand and has cliff-walls all round it, highest on the wadi side and lowest on the northern or desert side. At a conservative estimate in some 20 square miles there are not less than fifty to sixty Sei'ar villages which have scarcely even been visited by Arabs other than the Sei'ar and the Al Ishaq Sheikhs who live among them.

Some time after these reconnaissances my wife and I visited Al 'Abr on the ground, though she in fact went rather farther and drove some 20 miles towards Shabwa, a day and a half's camel ride from Al 'Abr. We have thus seen the whole of the Wadi Hadhramaut from its source to the sea, and the more you see of it the more extraordinary it is, for it must be at least 40 miles from its northern or left to its southern or right banks at Al 'Abr. This of course narrows very rapidly to 4 miles or so at Henin. It was from Henin that Seiyid Bubekr and I set out for Al 'Abr, following for a start the tracks which Dr. Pike, on a geological survey, had made in that direction. The tracks made by Mr. Philby had of course disappeared.

Our object was to obtain the looted camels of the Manahils, held by the Al 'Abdulla bin 'Aun of the Sei'ar at Al 'Abr. We had with us the fifteen slave soldiers of the Qu'aiti Regular Army who were to be installed there as a garrison, and as we did not want the Al 'Abdulla bin 'Aun to abscond into the desert with the camels, we had kept our movements secret. Seiyid Bubekr said his sunset prayers at Henin. The lorries had gone ahead and had made very slow progress as they had had heavy sand to negotiate. It was difficult finding the way in the dark, but we caught them up at half-past eight, and all of us sat down to dine together, just near the village of Sur and under the two mountains called Thukmein which form a conspicuous landmark from the air for a radius of 70 or 80 miles around. This was 27 miles from Henin,

24:Meulen and Wissmann T-3 (1931)1932 MM2 Hadhramaut MM2

We reached the little village of Laṣb within an hour. It lies just at the point where the gap narrows and the mountains on either side of the wādī become higher. In the perpendicular wall of rock has been cut a conduit, by which the water of a rivulet, which soon vanishes again, is carried to the palm-groves and *dhura* fields of the villages. We leave the path to seek refreshment among the *dhura* grown to more than a man's height. At the edges of the fields bananas and papayas are planted. The inhabitants of the village do not show themselves. The castle-like dwellings of mud stand high above the cultivated land, against the mountain-wall; perhaps our movements are being spied upon from behind the small, dark window openings.

Beyond the village, Wādī el-Laṣb narrows and the walls become steeper. The water-conduit looks like a thick, green roll clinging to the wall, with maidenhair fern and other moisture-loving plants growing in abundance. The brook with its crystal-clear water soon appears; where the water is dammed up in basins we see shoals of little black fish and many black frogs. The rocks are full of deep holes. The piled-up strata slope down towards us. The rock-wall hangs over us as we go further up the valley, and a thick, hard crust projects high above our heads over its edge so that we could walk in its shadow. Here we decided to wait for the camels; our companions immediately fell asleep, while we sought out a spot in the rivulet where it had widened out to form a pool and we bathed there. It is true, the little fishes came to see whether we were edible, but that did not spoil the unexpected, deep satisfaction of a bath in the wilderness of Southern Arabia. The water, certainly, is warm, but the dry wind has a refreshing effect as soon as one is out of the water and lets oneself be blown dry. Further inland the water was so warm that it was only enjoyable to bathe in it at night.

When the camels and the donkeys were at last to be seen, we went on further into the rapidly ascending wādī. We soon had to do without the pleasure of the brook and its thickly-

24:Meulen and Wissmann T-3 (1931)1932 MM2 Hadhramaut MM2

312 271 485 drinks. One must accustom oneself as soon as possible to the fixed habit in this country, of drinking one after the other out of the same cup or bowl. Even among the very rich and the Sultans, the big earthenware drinking cups are passed from guest to guest. One sees the soldiers and slaves drink out of them too. The water in the *siqāyas* is often dirty, with a variety of odours and tastes; it also swarms with larvae and the like, but thirst soon teaches one not to notice them and the aversion diminishes in course of time!

In Zemān eṣ-Ṣeghīr we were able to buy milk, buttermilk (here called *rūb*), lemons, coco-nuts and bananas, but at high prices.

361 ● 311 342 439 In the afternoon we proceeded and in a short time arrived on a plateau, fairly thickly covered with tufts of grass and low shrubs, where two villages, el-Ghēḍa and el-Ghiyāḍa, lie among well-cultivated fields of tobacco, surrounded by a small grove of date-palms. The mayor of el-Ghiyāḍa is related to the family of el-ʿAṭṭās; we were therefore desirous of calling upon him. The door of his simple, mud, mayoral residence was decorated with particularly fine carving. We were received in a little, dimly-lighted room that served both as a place for storing tobacco and as a reception-room. The mayor had been in Batavia for seven years and had there acquired some wealth in the *batik*[1] trade, which a son is now continuing. As soon as I was informed of this, I proposed to converse in Malay instead of in Arabic. Our host eagerly agreed and we were soon deep in reminiscences of Java. Meantime coffee was prepared, consisting for three quarters of ginger and for one quarter of coffee, and a great earthen bowl of cold water passed from mouth to mouth. These porous, unglazed bowls filled with water are placed in the small window openings, and the hot outer air causes the water which exudes through them to evaporate, thus cooling their contents. One finds the same

[272] 271

[1] *Batik* is the name of the specially Javanese art of decorating and dyeing pieces of cloth used as garments. The thus decorated pieces are also called *batik*.

24:Meulen and Wissmann T-3 (1931)1932 MM2 Hadhramaut MM2

with us ᶜAlī, an old and rather sour man, who was proud of being able to read and who faithfully spelt out the names of the places that we passed. When we had gone a little way he asked if we would buy a pair of spectacles for him at the *sūq*, the bazaar, of the Bandar (the seaport town, *i. e.* Makalla) so that he could better read the Koran. Our third man, ᶜAbdallāh, is a very ordinary sort of Bedouin; he speaks little, but startles us time and again on the march by his monotonously ugly and melancholy Bedouin singsong: *"Yā dūnā . . . ā . . . ā . . . ā!"* etc. Finally there is little Muḥammad, an indefatigable boy of twelve, who is now having his first experience of a journey of this kind and who has never yet seen either the sea or a town. Besides these, a weaver from Makalla has joined our caravan with a baggage camel and two boys. We ourselves have an enormous camel that we call the *fīl* or elephant, a female camel for the milk supply, and a young and slender animal making its first trip.

The caravan leaders here wear a strange kind of sandals. Broad strips of leather cover not only the whole upper part of the foot but extend out beyond the sole, which makes a rustling noise in walking. It is meant to keep off snakes and scorpions, especially on night journeys. Because of the richer vegetation and greater moisture, these creatures seem to be more prevalent here than in the arid interior, where sandals are chiefly worn in the afternoon to protect the feet from the heat of the ground.

Nearly all the men of the village accompany us through the palm-gardens to the river; we wade through the warm water and then come to more date-groves. After that there are *dhura* fields, which finally give place to shrubs, grasses and acacia trees. We make a short cut where the river bends; the fringe of palms continues uninterruptedly beside the water.

Dhēb declares himself ready for *takalluf*, *i. e.* for doing his utmost, so it is perhaps possible that we shall reach Makalla in six days. As soon as we enter the region mapped out by Little, Von Wissmann is able to give up his detailed survey

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
Hadhramaut 1442

Sultan formerly held the hereditary appointment of Zamindar of the Nizam of Hyderabad's Army Levy, which recruited largely from Quaiti territory. Mukalla town has even achieved a 'Nationalist Party', which fomented a serious riot in December 1950.[1] Farther east lies the large Mahri Sultanate of Qishn and of Socotra Island (pop. about 8,000); the resident adviser strongly urged the Sultan in 1950 to spend more time in his mainland territory instead of leaving it to a younger branch of his family, while the Sultan lived on Socotra.[2] The most important ruler in Wadi Hadramaut is the Kathiri Sultan of Sayun, who has his own armed constabulary. A number of lesser chiefs have for local security purposes their own tribal guards, whose maintenance is partly financed by the British Government. In addition, the Aden Government established in 1937 a force of Government Guards in the Western Protectorate, and three years later in the Eastern Protectorate the Hadrami Bedouin Legion, which was modelled on the Arab Legion of what has since become the Kingdom of Jordan.[3]

The assistance of a British Director of Agriculture and his staff is available to those rulers who desire it, and financial help has been forthcoming since 1947 under the Colonial Development and Welfare Act. It was proposed to expend £410,000 in 1951–2 (including £82,000 for agriculture); only £23,000 of this would come from local revenue, the remainder to be provided by the British Government.[4] Drought caused a serious famine in the Hadramaut in 1943 and another less serious one in 1948–9. The region's economy was formerly helped to a considerable extent by remittances from Hadrami emigrants who had prospered in the farther East, but political changes in Indonesia and in the Hyderabad state of India have adversely affected this traffic, and the British authorities have had recourse to a large-scale scheme of irrigation by diesel-engined pumps. In the Western Protectorate the development of irrigated agriculture on over 100,000 acres at Abyan (40 miles north-east of Aden Colony) was begun with help from Colonial Development and Welfare funds in 1947 and was becoming self-supporting by 1952. It is a partnership on the Sudan model between the tenants, who receive half the returns, the landowners (the local states or private landlords), and the board of management, who divide the other half. Long-staple cotton of the Egyptian kind had become the main crop by

[1] GB, Colonial Office, *Report on Aden for the years 1949 and 1950*, p. 60.
[2] ibid. p. 61.
[3] See A. M. Clark Hutchison, 'The Hadhrami Bedouin Legion', *Journal of the Royal Central Asian Society*, January 1950, pp. 62–5.
[4] See above, p. 112.

29:Dunn S-4 (1952)1952 MI Middle East :
Hadhramaut MM2

CHAPTER VIII

COTTON IN ARABIA

Arabia is divided into numerous groups, most of which are actually principalities. The boundaries of the subdivisions are indefinite and so is the authority of the local rulers in most cases. Some of these groups like to call themselves independent countries. One is called a kingdom. Some are called protectorates. The British have exercised the major influence over all these groups for 50 years and still do but in varying ways. One small spot of land actually belongs to the British Crown.

ADEN PROTECTORATE

The narrow strip of land along the southwestern tip of the Arabian Peninsula includes a number of territories and dependencies of Arab chiefs which have been organized under a protectorate treaty with the British, and is called the Protectorate of Aden.

The Protectorate is about the size of Arizona. It has about 660,000 people, many of whom are nomads. The country is mostly mountainous though there are a few valleys and flood plains capable of cultivation. The Food and Agriculture Organization estimates that there are about 270,000 acres actually in cultivation at the present time. As the plains receive only about four inches of rainfall annually, irrigation is required. Considerable water is available as rainfall in the mountains is rather heavy, approaching 40 inches annually, but facilities are inadequate for catching and directing the water.

The economy of the protectorate rests almost solely on agriculture. The principal crops are grains and some fruits, principally dates. While a small quantity of coarse grains is normally exported, the country usually imports about half its bread grain requirements.

COTTON

Cotton has been grown in this area in small quantities for hundreds of years, but never in commercial quantities until very recent years when British interests began promoting production.

The following article on the present status and prospects of cotton production in the Protectorate was written especially for this report by the research staff of the Empire Cotton Growing Corporation, London, with the collaboration of Major Congdon, Manager of the Abyan Board in the Aden Protectorate.

RECENT HISTORY

"During the last war to increase the production of food, the old Abyan irrigation system was reopened and the headworks were partially restored under the direction of the Department of Agriculture. The reclaimed areas were used mainly for sorghum, bulrush millet and simsim, but it soon became

5:Gt. Brit., Colonial Office G-3 (1947) 1949 MM1 Aden
Hadhramaut MM2

315 A party from Petroleum Concessions Ltd. arrived in November and, after visiting Hadhramaut, went east along the coast to prospect the Mahra area.

Chapter 7: Agriculture, Fisheries and Forestry

AGRICULTURE

General

132 There was rain in the west of the Hadhramaut and in the Eastern coastal 312 area in February, and in June and August good rains in the Hadhramaut formed a new lake above the recently finished Nuqra dam. The spring 243 wheat and barley crops were satisfactory. Efforts to persuade the farmers to grow barley rather than wheat continued and towards the end of the year some effect was noticed, partly owing to the discovery of a way of cooking the barley so as to make it acceptable as food; experiments in machine grinding were also started.

Staff

647 The staff of the Department of Agriculture consists of a Director, two Agricultural Officers, an Agricultural Assistant, an Engineer Assistant and six Agricultural Instructors.

Land Utilisation

312 Lack of rainfall imposes a severe limitation on crop production in the Protectorate. Highly developed conservation measures, run-off 311 control, flood irrigation and artificial irrigation are employed to secure arable land production. The percentage of arable land to the desert and range is estimated at 0·33 per cent. Established pastures and meadows are unknown. Dry forest scrub is found on the Island of Socotra and in the far Eastern Mahra Coast.

Crop Production

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Western Aden Protectorate

	Acres	*Tons*
Millet—sorghum	60,000	12,000
Bulrush millet and other small millets	10,000	1,500
Wheat	1,500	750
Barley	4,500	3,000
Sesame	10,000	1,000

Eastern Aden Protectorate

Millet—sorghum	20,000	4,000
Bulrush millet and other small millets	3,000	500
Wheat	3,500	2,500
Date palms	10,000	5,500

7: Gt. Brit., Colonial Office G-3 (1949-50) 1951 MM1 Aden
Hadhramaut mm2

311 471 Inhabitants of Wadi Du'an, an area with an ever-present threat of famine, were persuaded to purchase some of the large tracts of good arable land and shallow wells lying fallow and idle in the main Wadi Hadhramaut in the hope that they will gradually move from their over-populated wadi. Three companies were formed by Duanis, with a capital of well over Rs. 1,00,000 for the purpose of cultivating hitherto dead lands at Dar-Assab, Aqad and the area at Hautat Ahmed bin Zein in the main wadi, while Du'an merchants began to take an interest in existing date palm groves in the area. The local States were empowered to allot dead lands to farmers if the owners failed to cultivate them.

An agricultural syndicate formed to develop the Meifa area of Wadi Hajr with a capital of Rs. 4,00,000 has been active during 1950. The planting of date palms in the area has started and the syndicate [164] allotted lands and gave advances to some 240 Subians—but up to now there is some reluctance on the part of agriculturists from other areas to settle down and work in Meifa owing to the prevalence of malaria there.

In November, 1950, two windmills were imported for experimental use in irrigation, one being installed at Buweish in the coastal area, the other being sent to Sai'un.

Co-operation

474 The Beihan Farmers' Association had a difficult year. A large proportion of the barley crop had been sown early and, in January and February, frost damaged the heading crop, seriously reducing yield and quality. As a result the Association deferred collection of up to 50 per cent of the outstanding loans which were carried over to the Saif and Kharif crops and to the winter crop of the 1949-50 season. Excellent conditions at the end of the year gave the Association full confidence in its operations.

The credit facilities for seed and cash given by the Association enabled the cultivators to carry on without much recourse to merchants and moneylenders.

FISHERIES

228 The Fishery Department did not begin work on a permanent basis until the end of 1949. During 1950 activity has been mostly exploratory. Unfortunately, winch trouble in the fishery vessel severely limited the amount and nature of the trial fishing that could be done, but practically every fishing village in both Protectorates was visited, and also the islands of Kamaran in the Red Sea and Kuria Muria, 700 miles east of Aden off the Muscat coast. The information obtained about the fishing population and its activities forms a valuable basis for development plans.

In general, the observations made in the 1948 report still hold good. The winter sardine seasons of 1949–50 and 1950–51 have, unfortunately, been little better than 1948–49. There has been a definite but slight improvement, but catches of sardines and their attendant predators are

CLIMATE

132 The maritime plains are damp and hot in the summer, and are subject to sandstorms and high winds. In the winter (October to the end of March) it is cool and sometimes cold at night and much less damp.

In the mountains, which vary in height between 1,500 and 8,000 feet, it is drier and cooler during the day and night ; at above 4,500 feet it can be very cold.

In the Wadi Hadramaut and the intervening tableland or "Jol," extremes of both heat and cold are encountered. The heat, in contrast to that of the coast, is dry, but more intense. The rainfall is small.

132 There is little rainfall in the littoral and maritime hills ; here cultiva-
312 tion is chiefly dependent on irrigation from water channels and courses. In the highlands well irrigation is common and there is heavier rainfall, which is led down ravines and defiles into terraced fields.

GENERAL DESCRIPTION

133 The Western Aden Protectorate is divided into the littoral belt which varies between four and 40 miles in depth ; the maritime ranges about 1,000–2,000 feet above sea-level ; the intramontane plains over 3,000 feet high ; and the highland plateau which ranges from 5,000 to 8,000 feet high and falls away into the Ruba' al Khali (or Empty Quarter) with a mean altitude of 2,500 feet. The country between the littoral belt on the one hand and the intramontane plains and the plateau on the other is a tangle of mountains, ravines and valleys. Some of the valleys are very fertile. The plateau itself is broken up by numerous hills and mountains and is intersected with several deep valleys.

311 The greater part of the Eastern Aden Protectorate consists of desert and barren mountains intersected by wadis, some of which are fertile and cultivated. There are a number of comparatively large towns, notably Mukalla, the capital of the Qu'aiti State and principal seaport, and Sai'un, the capital of the Kathiri State.

Chapter 12: Administration

631 The Eastern Aden Protectorate comprises the Hadhramaut (consisting
648 of the Qu'aiti State of Shihr and Mukalla, and the Kathiri State of
649 Seiyun), the Mahri Sultanate of Qishn and Socotra, the Wahidi Sultanates of Bir 'Ali and the Sheikhdoms of Irqa and Haura, all of which have been for many years in protective treaty relations with His Majesty's Government. His Highness Sultan Sir Salih bin Ghalib al Qu'aiti, K.C.M.G., Sultan of Shihr and Mukalla, is the premier chief in the Eastern Aden Protectorate, and the Hadramaut is the most important and best organised of these areas. It is bounded on the west by the Wahidi Sultanates and on the east by the Mahri Sultanate.

648 The Mahri Sultanate of Qishn and Socotra is the most easterly
631 area in the Aden Protectorate, being bounded on the east by the

30: Gt. Britain G-5 (ca. 1918) 1920 MJ1 Saudi Arabia
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the greater part of the year, in certain places. These interruptions are due to the entire volume of water—which in dry seasons is not very considerable—being led off into the cultivation and returned again lower down. It is said that the waters of the Tiban, like those of the Bana, occasionally reach the sea after abnormal floods. The Bana River runs continuously from May to October.

The coast-line generally is low and sandy and devoid of promontories or inlets of any size, except at Aden, where craterous promontories rise to about 1,700 ft. above sea-level, forming sheltered bays, and at a point some sixty miles west of Aden, where a spur of the Yemen highlands approaches the coast at Khōr 'Umeirah.

Climate

In the first zone—the littoral—the heat in general is excessive, but the climate is not unhealthy for those who can stand the fierce heat of the day, and the nights are cool. The cultivated oases and river-beds, however, which afford grateful shade by day, should be avoided as fever traps, and the Tiban valley and Lahej oasis in general have an ill name for malaria of a malignant type. The only rainfall is afforded by a few showers in mid-winter. Cultivation depends chiefly on irrigation from the wādi water-courses, and consists almost entirely of millet, *jowari*, and tall fodder crops such as *kirbi*.

In the second zone—the maritime hills—the rainfall is as in the first zone; but there is no opportunity for wādi irrigation, and in consequence scarcely any crops are raised. The air is stifling by day and damp at night.

In the third zone—the intramontane plains—the rainfall takes place during the summer in occasional thunderstorms. The crops are millet and maize, and they become more abundant and fertile as the main watershed is approached. The heat here, again, is very great.

In the fourth zone—the main watershed—there is a considerable rainfall during the summer months, and a bracing and fairly equable climate with sometimes a degree or so of frost at night. Cultivation is scanty, chiefly barley and a few light fodder crops.

In the fifth zone—the plateau—water lies within ten feet or so of the surface, and there is a good deal of irrigation from wells, besides the regular rainfall. This is small, but from October to March the region is liable to dense white fogs which fall after dark and lie thick to 9 a.m. They will wet one through in an hour, but are invaluable to the farmer as they alone keep the crops alive till

30: Gt. Britain G-5 (ca. 1918) 1920 MJ1 Saudi Arabia
Hadhramaut MM2

the summer thunderstorms are due. These latter are often extremely violent, even terrifying. Hail occasionally falls. Harvesting of one crop or another goes on throughout the year—chiefly bearded wheat, barley, maize, lucerne, and coffee (but the latter is less frequent than over the Yemen border). Indigo and cotton (a very small bush) are grown in the Nisāb district and grapes on the Yemen border.

In the sixth zone—the Empty Quarter or Great Red Desert—the population is pastoral and follows the grazing according to the rainfall, which is irregular and scanty. Along the principal wādis, which lead north towards the desert, there are permanent settlements and cereal crops are raised, chiefly millet, the stalks of which make useful fodder when grazing is scarce. The semi-nomadic part of the population returns to the settlements to await the next grazing-season in the desert.

In the Aden Interior as a whole the prevailing diseases are small-pox, fever (especially malarial), and, to some extent, consumption. The 'Yemen ulcer' is also common among the tribes.

Population

The population of the Aden Interior (considered as a whole, and including that portion known strictly as the Aden Protectorate), settled and nomadic, may be computed at about half a million. The district is composed of a number of Tribal Confederations or Sultanates, some lying within the limits of the Protectorate proper, some without.

The limits of the Aden Protectorate proper are the delimitation line, previously mentioned, from Ras Turbah to a point some few miles north of Dhāla, and thence a somewhat vaguely defined line continuing at first in a south-easterly direction and then in a generally easterly direction to the coast of the Gulf of Aden near the small settlement of Maqātīn. They enclose an area of about 4,200 sq. miles, having a population of 100,000. The tribal confederations lying within this boundary are: the Subeihi, 'Abdāli, Fadhli, Haushabi, Amīri, 'Alawi, 'Aqrabi, and other smaller tribes; and without are the Yāfa', 'Aulaqi, Beida, Oleh, and 'Audillah ('Audali). The tribes of the Protectorate have a larger proportion of non-combatants and are more settled than those of the remoter interior; the bulk are to be found in the towns and villages of the littoral belt, the chief centres being Lahej, Waht, Shūghrah, and the Abiyān district.

In dealing with a variety of tribes with such different characteristics it is difficult to generalize; broadly they may be divided

30: Gt. Britain G-5 (ca. 1918) 1920 MJ1 Saudi Arabia
Hadhramaut MM2

form, geographically and socially, a remarkably homogeneous whole. It may be said, in brief, that the districts of the Hadhramaut are singularly fertile and self-sufficing, and so situated geographically as to hang closely together and to be isolated socially, as a whole, from the rest of Arabia; while, at the same time, they lie within reach of ports which are in constant communication with mid-eastern Africa and India. To the north stretches unbroken the most terrible waste of sand-dunes in the peninsula; to the east the district is practically isolated from the Oman provinces by the almost waterless desert of Mahrah; while to the west it is difficult of access from the Yemen and its outlying provinces on account of a mountainous and sterile desert-steppe which, up to the present, remains almost entirely unexplored.

Possessing more frequent and easy communication with Moslem communities outside Arabia than within it, the population of the Hadhramaut has had ample opportunity to develop particularism in its social organization as well as in its religious spirit. The fertility of its lands makes its farmers self-sufficient and jealous with the jealousy of men who have much to lose; and, while their relations with Africa have given them unusual wealth of slaves, their relations with India and other parts of the East, greatly enhancing their material civilization, have at the same time made them fully aware of the nature of European rule and the danger of giving free entrance to members of a race which condemns slavery. For long they succeeded in barring the way to the encroachments of all foreigners, and it is only within comparatively recent times that travellers, few in number, have succeeded in acquiring information, and that only to a very limited extent, about the social organization, customs, and manners of this interesting and highly exclusive people.

The population may be divided into four more or less distinct classes:

1. The Seyyids.
2. The Tribesmen.
3. The Townsmen.
4. The Servile classes, or slaves.

The *Seyyids*, descendants of Husein, grandson of Mohammed, form a numerous and highly respected aristocracy. They are divided into families, the heads of which are known as 'Munsibs', who are looked upon as the religious leaders of the people and are in some cases venerated as saints. They do not bear arms, nor occupy themselves in trade or manual labour, or even agriculture;

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established to supply the local market—for the processing of soaps, pressed aluminum utensils, cigarettes, pottery and textiles, the extraction of sesame oil, the cutting of buttons from trochas shells and the building of dhows. Fishing is of potential importance, but its development is handicapped by primitive methods of procurement and handling and inadequate local transport facilities. The agricultural resources of the Colony are limited to market gardens and date groves on the oasis of Sheikh Othman.

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Agriculture and fishing are the principal occupations of the tribesmen of the Protectorate. The fisheries of the eastern districts are reputed to be among the richest in the Middle East, while the drying and salting of fish and the manufacture of fish oils, fodder and manure are valuable industries in the coast towns. A large proportion of the people in Western Aden Protectorate and the Hadhramaut engage in agriculture, although the tribes of the steppe country are mainly nomadic pastoralists. The expansion of farming is curtailed by uncertain rainfall and shortage of water supply. In the Eastern Aden Protectorate, cultivation is restricted mainly to the middle portions of the Hadhramaut valley, where the river flows for part of the year. This region is historically famous as a source of frankincense and myrrh. Elaborate terracing and irrigation are employed in many areas for the conservation and the utilization of the limited water resources available. It was estimated in 1948 that less than 0.5 per cent of the total land area was suitable for farming, but the relative extent of pasturage and desert has not been determined. Systems of peasant ownership, tenancy farming and tribal land tenure prevail in different localities. The improvement of agriculture and expansion of irrigation are prominent among the development programs for the Protectorate. A co-operative project for the cultivation of cotton and other crops by modern methods has recently been initiated on 5,000 acres in the Abyan area in Western Aden Protectorate. Little

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